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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/827,372	04/20/2004	Hiroyuki Inoue	MAE 312	3817
23995	7590	01/11/2006	EXAMINER	
RABIN & Berdo, PC 1101 14TH STREET, NW SUITE 500 WASHINGTON, DC 20005			BEATTY, ROBERT B	
			ART UNIT	PAPER NUMBER
			2852	

DATE MAILED: 01/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/827,372

Applicant(s)

INOUE ET AL.

Examiner

Robert Beatty

Art Unit

2852

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 15-20 is/are rejected.
- 7) ☒ Claim(s) 5-14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

2. The abstract of the disclosure is objected to because on line 1, insert --image-- after "visible". In addition, a description of the idling mode should be included. Correction is required. See MPEP § 608.01(b).

3. The drawings are objected to because in Fig.5 and 18, the applicant describes "φ1" however only "φ" is described in the specification . Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes

are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3,15,18 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Kuramochi et al. (JP# 04-139479).

Kuramochi et al. teach an image forming apparatus (inherently including a photosensitive member and transfer section) which has a first temperature sensor 6 abutting on a fixing roller 2 heated by a heater 3 and a second temperature sensor 12 arranged within the image forming apparatus. When a detected temperature signal is higher than a predetermined value (set to a desired value and interpreted to by a first or second threshold where the first and second threshold are the same), the energizing of the fixing roller heater is stopped so as to cool the apparatus (cooling operation). This will inherently lower the temperature within the image forming apparatus including the photosensitive member. When the detected

temperature reaches above the predetermined value the energizing of the fixing roller will continue.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kuramochi et al. (JP# 04-139479) in view of JP# 08-44435.

Kuramochi et al. taught supra discloses most of what is claimed except the fixing heater being controller at a first duty cycle during normal operation and at a second duty cycle during the cooling operation. JP# 08-44435 teach an image forming apparatus that has a heater 13 for a photosensitive member and a heater 33 for a fixing roller. A first temperature sensor 17 detects the temperature of the photosensitive member and a second temperature sensor 37 detects the temperature of the fixing roller. The heaters will be controlled via a power duty ratio. Depending on the detected temperature, the power duty ratio will change in order to reduce the temperature of the apparatus. It would have been obvious to one of ordinary skill in the art at the time the invention was made to control the heater with a duty cycle that reduces the temperature of the image forming apparatus

instead of stopping power completely because the drop in temperature will not be as drastic and thus a return to normal printing condition will be quicker.

6. Claims 16,17 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuramochi et al. (JP# 04-139479) in view of Hirose et al.

Kuramochi et al. taught supra discloses most of what is claimed except determining whether the cooling operation should be performed before a print operation and the second temperature sensor being adjacent the photosensitive member. Hirose et al. teach an image forming apparatus having a temperature sensor 127 positioned adjacent the photosensitive drum (col.9, lines 55-59). Before each print operation, the temperature will be sensed and compared to a threshold. The printing speed will be varied according to this determination. It would have been obvious to one of ordinary skill in the art at the time the invention was made to sense the temperature before each print operation because a faulty print can be prevented by performing a corrective action before the print. It would have further been obvious to one of ordinary skill in the art at the time the invention was made that since today's printers are compact, than it can be said any sensor within the printer will be "adjacent" the photosensitive drum and as taught in Hirose et al. such a position is known for the purpose of detecting an internal temperature and correcting for higher internal temperatures.

7. Claims 5-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Yamada, Matsuzawa et al., Miyamoto et al., Jung, Sugiura, Kojima et al., JP# '517, Nakayama (JP), and Fujiwara (JP) all teach printers with temperature sensors and a controller for performing a corrective action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Beatty whose telephone number is (571) 272-2130. The examiner can normally be reached on M-F from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur Grimley, can be reached on (571) 272-2136. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR

Art Unit: 2852

only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Robert Beatty", with a stylized, cursive script.

Robert Beatty
Primary Examiner
Art Unit 2852

January 7, 2006